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WASHINGTON D.C., 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

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MEMORANDUM

SUBJECT: Addendum to the Data Evaluation Report on the Toxicity of Clarity 4.0 SL (AI: Dicamba) to Terrestrial Vascular Plants: Vegetative Vigor (MRID 47815102)

TO: Michael Walsh, Risk Manager Reviewer
Kathryn Montague, Risk Manager
Registration Division (7505P)

FROM: Elizabeth Riley, Biologist
Mark Corbin, Branch Chief
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Environmental Fate and Effects Division (7507P)

After re-evaluating the most sensitive dicot endpoints identified in the attached Data Evaluation Report (DER), the reviewer, in consultation with the Plant Technical Team (PTT), determined that use of the IC_{05} for soybeans (*Glycine max*) is not necessary given the following:

- The lowest concentration tested (0.000261 lb ae/A) in the study exhibited a 9.15% difference from the control for soybeans. Though the natural variability between plants of the same species is not thoroughly understood, it is likely, given the other lines of evidence considered, that this difference is within the range of variability under the conditions of the test.
- There is substantial overlap in the 95% confidence intervals for the control (49.73 and 57.34) and lowest concentration tested (43.52 and 53.75). This, combined with the minimum significant difference in the test of 4%, resulted in a relatively small percent difference triggering a significant effect at the lowest concentration tested.
- The non-linear regression used to calculate the IC_x for this study is in better agreement with the measured percent effect at higher concentrations. For example, the concentrations with observed percent effects of roughly 25% and 50% were 0.000751 and 0.00676 lb ae/A, respectively. From the non-linear regression, the calculated IC_{25} and IC_{50} were 0.000513 and 0.00669 lb ae/A, respectively. However, the concentration with an observed percent effect of roughly 10% (0.00026 lb ae/A) is an order of magnitude

less sensitive than the calculated IC_{10} value (0.0000508 lb ae/A). This significant disagreement calls into question the ability of the non-linear regression to accurately represent effects at the low levels observed in the study.

As a result of this re-evaluation, the reviewer believes that the lowest concentration tested in the study (0.000261 lb ae/A) represents the no adverse effect concentration (NOAEC) and should be used in all future risk assessments for the DGA salt of dicamba. The IC_{25} value of 0.000513 lb ae/A will remain the same.